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NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
                 saved answer sets no longer valid
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
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NEWS 16 Aug 08 CANCERLIT reload
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 08 NTIS has been reloaded and enhanced
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                 now available on STN
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NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
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NEWS 25 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 26 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 27 Oct 21 EVENTLINE has been reloaded
NEWS 28 Oct 24 BEILSTEIN adds new search fields
NEWS 29 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 30 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 31 Nov 18 DKILIT has been renamed APOLLIT
        Nov 25 More calculated properties added to REGISTRY
NEWS 32
                TIBKAT will be removed from STN
NEWS 33
         Dec 02
NEWS 34
        Dec 04 CSA files on STN
NEWS 35 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36 Dec 17 TOXCENTER enhanced with additional content
NEWS 37 Dec 17 Adis Clinical Trials Insight now available on STN
NEWS 38 Dec 30 ISMEC no longer available
NEWS 39
         Jan 13 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 40 Jan 21 NUTRACEUT offering one free connect hour in February 2003
         Jan 21 PHARMAML offering one free connect hour in February 2003
NEWS 41
NEWS 42 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
                 ENERGY, INSPEC
NEWS EXPRESS January 6 CURRENT WINDOWS VERSION IS V6.01a,
```

CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),

AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002

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FILE 'HOME' ENTERED AT 14:43:21 ON 06 FEB 2003

=> fil reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
0.21 0.21

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 5 FEB 2003 HIGHEST RN 486392-61-4 DICTIONARY FILE UPDATES: 5 FEB 2003 HIGHEST RN 486392-61-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> Uploading 09815362b.str

L1 STRUCTURE UPLOADED

=> d L1 HAS NO ANSWERS L1 STR

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 14:43:58 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 2453 TO ITERATE

40.8% PROCESSED 1000 ITERATIONS

50 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 46090 TO 52030

PROJECTED ANSWERS: 5937 TO 8191

L2 50 SEA SSS SAM L1

=> s 11 full

FULL SEARCH INITIATED 14:44:01 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 49870 TO ITERATE

100.0% PROCESSED 49870 ITERATIONS

6932 ANSWERS

0 ANSWERS

SEARCH TIME: 00.00.03

L3 6932 SEA SSS FUL L1

=>

Uploading 09815362b.str

L4 STRUCTURE UPLOADED

=> d

L4 HAS NO ANSWERS

STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 14

SAMPLE SEARCH INITIATED 14:46:10 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 6223 TO ITERATE

16.1% PROCESSED 1000 ITERATIONS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

119734 TO 129186

PROJECTED ANSWERS:

0 TO

L5

0 SEA SSS SAM L4

=> s 14 full

FULL SEARCH INITIATED 14:46:15 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 124728 TO ITERATE 100.0% PROCESSED 124728 ITERATIONS

SEARCH TIME: 00.00.02

L6 26 SEA SSS FUL L4

=> d scan

26 ANSWERS

9815362Page 5 02/06/2003

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Butanediamide, N4-hydroxy-N1+[1-(1H-imidazo[4,5-c)pyridin-2-y1)-2-(2-naphthalenyl)ethyl]-2-(2-methylpropyl)-3-(3-phenylpropyl)-,
[2R-[1(5*),2R*,3S*]]- (9CI)
MF C35 H39 N5 O3

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):25

26 ANSWERS REGISTRY COPYRIGHT 2003 ACS HH-Imidazole-4-propanamide, 5-methyl-N-{(4-methylphenyl)sulfonyl}-.alpha.-2-naphthalenyl- (9CI)
C24 H23 N3 O3 S

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Butanediamide, N1-hydroxy-N4-[1-(1H-imidazol-2-y1)-2-(2-naphthaleny1)ethy1]-2-methy1-3-(2-methy1propy1)-, {2S-[2R*,3S*,4(R*)]}-(9CI) MF C24 H30 N4 O3

Absolute stereochemistry.

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
Butanediamide, N4-hydroxy-N1-[1-(1H-imidazo[4,5-c]pyridin-2-y1)-2-(2-naphthalenyl)ethyl]-2-(2-methylpropyl)-3-(4-pyridinylmethoxy)-,
[2R-[1(\$'),2R',3S*]]- (9CI) MF C32 H34 N6 O4

Absolute stereochemistry.

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

9815362Page 6 02/06/2003

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN 1H-Imidazole-5-propanoic acid, 1-[(1,1-dimethylethoxy)carbonyl]-4-methyl.alpha.-2-naphthalenyl- (9CI)
MF C22 H24 N2 O4

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
1H-Imidazole, 4-methyl-2-[2-(2-naphthalenyl)ethyl]-5-(phenylmethyl)- (9CI)
C23 H22 N2 L6 In MF

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Butanediamide, N4-hydroxy-N1-[1-(1H-imidazo[4,5-c]pyridin-2-y1)-2-(2-naphthalenyl)ethyl)-2-(2-methylpropyl)-3-(2-propenyl)-,
 [2R-[1(S*),2R*,3S*]]- (9CI)
MF C29 H33 N5 O3

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN 1H-Indole-2-carboxamide, N-{(1S)-1-[5-(4-bromophenyl)-1-methyl-1H-imidazol-2-yl]-2-(2-naphthalenyl)ethyl}- (9CI)
MF C31 H25 Br N4 O

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9815362Page 7 02/06/2003

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Butanediamide, N1,2-dihydroxy-N4-[1-(1H-imidazo[4,5-c]pyridin-2-y1)-2-(2-naphthalenyl)ethyl]-3-(2-methylpropyl)-, [25-[2R*,3S*,4(R*)]]- (9CI)
MF C26 H29 N5 O4

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS

IN Butanediamide, N4-hydroxy-N1-[1-(1H-imidazo[4,5-c]pyridin-2-y1)-2-(2-naphthalenyl)ethyl]-2-(2-methylpropyl)-3-(phenylmethoxy)-,

[2R-[1(S*),2R*,3S*]]- (9CI)

MF C33 H35 N5 O4

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN 1H-Imidazole-4-propanoic acid, 1-[(1,1-dimethylethoxy)carbonyl)-5-methyl.alpha.-2-naphthalenyl-, methyl ester (9CI)
 MF C23 H26 N2 O4

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN 1H-Benzimidazole-2-acetonitrile, .alpha.-(2-naphthalenylmethyl)- (9CI)

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

9815362Page 8 02/06/2003

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Butanediamide, N4-hydroxy-N1-{1-(1H-imidazo[4,5-c)pyridin-2-y1)-2-(2-naphthalenyl)ethyl}-2-(2-methylpropyl)-3-[3-(1H-pyrazol-1-y1)propyl]-,
 [2R-[1(S*),2R*,3S*]}- (9CI)
MF C32 H37 N7 O3

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Carbamic acid, [(1S)-1-[5-(4-bromopheny1)-1-methy1-1H-imidazo1-2-y1]-2-(2-naphthaleny1)ethy1)-, 1,1-dimethy1ethy1 ester (9CI)
MF C27 H28 Br N3 O2

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN 1H-Imidazole, 2-[2-(2-naphthalenyl)ethyl]-4,5-bis(phenylmethyl)- (9CI)
MF C29 H26 N2

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Butanediamide, N4-hydroxy-N1-[1-(1H-imidazo[4,5-c]pyridin-2-y1)-2-(2-naphthalenyl)ethyl]-2-(2-methylpropyl)-3-(2-pyridinylmethoxy)-,
 [2R-[1(5*),2R*,3S*)]- (9CI)
MF C32 H34 N6 O4

Absolute stereochemistry.

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

9815362Page 9 02/06/2003

26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
1H-Imidazole-5-propanoic acid, 1-[(1,1-dimethylethoxy)carbonyl]-4-methyl.alpha.-2-naphthalenyl-, methyl ester (9CI)
C23 H26 N2 O4 L6 In

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN 1H-Imidazole, 2,2'-[2-(5,6,7,8-tetrahydro-2-naphthalenyl)ethylidene]bis-

(9CI) C18 H20 N4

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT ..

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Butanediamide, N4-hydroxy-N1-[1-(1H-imidazo[4,5-c]pyridin-2-y1)-2-(2-naphthalenyl)ethyl}-2-(2-methylpropyl)-3-[3-(2-pyridinyl)propyl]-,
[2R-[1(5*),2R*,3S*]]- (9CI)
MF C34 H38 N6 O3

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9815362Page 10 02/06/2003

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Butanediamide, N1-hydroxy-N4-[1-(1H-imidazo[4,5-c]pyridin-2-y1)-2-(2-naphthalenyl)ethyl]-2-methyl-3-(2-methylpropyl)-, [25-{2R*,35*,4(R*)}}-(9CI)
MF C27 H31 N5 O3

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS

IN Butanediamide, N4-hydroxy-N1-(1-(1H-imidazo(4,5-c]pyridin-2-y1)-2-(2-naphthalenyl)ethyl]-2-(2-methylpropyl)-3-(3-pyridinylmethoxy)-,
[2R-[1(S*),2R*,3S*]]- (9CI)

MF C32 H34 N6 O4

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN 1H-Imidazole-2-methanamine, 5-(4-bromophenyl)-1-methyl-.alpha.-(2-naphthalenylmethyl)-, (.alpha.S)- (9CI)

Absolute stereochemistry.

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9815362Page 11 02/06/2003

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS IN 1H-Imidazole, 2-[2-(2-naphthalenyl)ethyl]- (9CI) MF C15 H14 N2

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

ALL ANSWERS HAVE BEEN SCANNED

=> Uploading 09815362b.str

L7 STRUCTURE UPLOADED

=> d

L7 HAS NO ANSWERS

L7 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 17

SAMPLE SEARCH INITIATED 14:48:42 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 6223 TO ITERATE

16.1% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

7 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 119734 TO 129186

PROJECTED ANSWERS:

475 TO 1267

L8 7 SEA SSS SAM L7

=> s 17 full

FULL SEARCH INITIATED 14:48:45 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 124728 TO ITERATE

100.0% PROCESSED 124728 ITERATIONS SEARCH TIME: 00.00.02

464 ANSWERS

L9 464 SEA SSS FUL L7

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 446.85 447.06

FULL ESTIMATED COST

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FILE COVERS 1907 - 6 Feb 2003 VOL 138 ISS 6 FILE LAST UPDATED: 5 Feb 2003 (20030205/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 19

L10

67 L9

=> s 110 and adrenergic

68996 ADRENERGIC

255 ADRENERGICS

69040 ADRENERGIC

(ADRENERGIC OR ADRENERGICS)

L11

8 L10 AND ADRENERGIC

=> d ibib abs hitstr 1-8

L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 2002:754359 CAPLUS

DOCUMENT NUMBER: 137:263032 TITLE: Preparation of imidazoles as selective agonists at .alpha.2B or .alpha.2B/.alpha.2C adrenergic

receptors

Chow, Ken; Gil, Daniel W.; Burke, James A.; Harcourt, INVENTOR (5): Dale A.; Garst, Michael E.; Wheeler, Larry A.; Munk,

Stephen A.; Gomez, Dario G. Allergan, Inc., USA PCT Int. Appl., 141 pp.

PATENT ASSIGNEE(S): SOURCE:

CODEN: PIXXD2 Patent

DOCUMENT TYPE: LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2002076950 A2 20021003 WO 2002-US8222 20020313 W: AE, AG, AL, AM, AT, AU, A2, BA, BB, BG, BR, BY, BZ, CA, CH, CN CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MV, MX, MZ, NO, NZ, OM, PH, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DX, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2003023098 A1 20030130 US 2001-815362 20010321 US 2001-815362 A 20010321 US 1997-985347 B2 19971204 PRIORITY APPLN. INFO .: US 1998-205597 B2 19981204 US 1999-329752 B2 19990610

OTHER SOURCE(S): MARPAT 137:263032

Compds. (shown as I), which are selective agonists at .alpha.2B or .alpha.2B/.alpha.2C adrenergic receptors and useful for the treatment of conditions including pain, particularly chronic pain, glaucoma or elevated intraocular pressure with reduced cardiovascular or sedative side effects, are claimed. Also included are methods of making and using such compds. In I, each x is independently 1 or 2; each R1 is independently Hr halogen; C1-4 alkyl; C1-4 alkenyl; C1-4 alkynyl; -C0R4 where R4 is H, C1-4 alkyl or C1-4 alkoxy; C3-6 cycloalkyl; aryl; heteroaryl; cyano; nitro; trihalomethyl; oxo; or -(CH2)n-X-(CH2)m-(R5)o

L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued) 1H-Imidazole, 4-[(1,2,3,4-tetrahydro-4,4-dimethyl-2-naphthalenyl)methyl)-226571-36-49, 1H-Imidazole, 4-[(1,2,3,4-tetrahydro-7-methyl-2-naphthalenyl)methyl]-, monohydrochloride 226571-37-59, 1(2H)-Naphthalenone, 3,4-dihydro-2-(lH-imidazol-4-ylmethyl)-7-methyl-RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

> (prepn. of imidazoles as selective agonists at .alpha.2b or alpha.2b/.alpha.2c adrenergic receptors)

157058-44-1 CAPLUS

1(2H)-Naphthalenone, 3,4-dihydro-2-(1H-imidazol-4-ylmethyl)- (9CI) (CA INDEX NAME)

157058-52-1 CAPLUS

1H-Imidazole, 4-((1,2,3,4-tetrahydro-2-naphthalenyl)methyl)- (9CI) (CA

157058-55-4 CAPLUS

lH-Imidazole, 4-[{1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl}methyl]-(9CI) (CA INDEX NAME)

226570-89-4 CAPLUS

CN 1H-Imidazole, 4-[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

(Continued) L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS where X is O, S or N, n is 0-3, m is 0-3, o is 0-1, and R5 is Me or H1-2. Each R2 and each R3 are independently H; halogen; C1-4 alkyl; C1-4 alkenyl; C1-4 alkynyl; -COR4 where R4 is H; C1-4 alkyl or C1-4 alkoxy; C3-6 cycloalkyl; aryl; heteroaryl; cyano; nitro; trihalomethyl; oxo; or -(CH2)n-X-(CH2)m-(R5)o where X is O, S or N, n is O-3, m is O-3, o is O-1, and R5 is Me or H1-2; or an R2 and an R3 together condense to form a satd., partly satd., or unsatd. ring structure having the formula
-[C(R6)p]q-Xs-[C(R6)p]r-Xt-[C(R6)p]u where each R6 is independently H;
halogen; C1-4 alkyl; C1-4 alkenyl; C1-4 alkynyl; -COR4 where R4 is H, C1-4 alkyl or Cl-4 alkoxy: C3-6 cycloalkyl: aryl: heteroaryl: cyano: nitro: trihalomethyl and oxo where each p is independently 1 or 2, q is 0-5, r is 0-5, u is 0-5. Each X is independently 0, S, or N and is 0 or 1; provided that q + r + u + s + t < 6. Y is 0; S; N; -[C(R7)z]s-, where each R7 is independently as previously defined for R1, each z is independently 1-2, and s is 1-3; -CH: ; -CH:CH-; or Y1CH2, where Y1 is 0, N, or S; and the dotted lines in I are optional double bonds, with the proviso that if the ring including Y is a cyclohexane ring or a heterocyclic 5 member ring said ring is not fully unsatd., and that if Y is O, N or S, the ring including Y contains at least one said double bond. Intrinsic activities towards .alpha.2A, .alpha.2B, .alpha.2C adrenergic receptors of .apprx.100 of the claimed compds. relative to brimonidine/oxymetazoline are tabulated. Although the methods of prepn. are not claimed, .apprx.100 example prepns. are included. 157058-47-4P, 1(2H)-Naphthalenone, 3,4-dihydro-2-(1H-imidazol-4-

ylmethyl)-7-methoxy-RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of imidazoles as selective agonists at .alpha.2b or

.alpha.2b/.alpha.2c adrenergic receptors)

1(2H)-Naphthalenone, 3,4-dihydro-2-(lH-imidazol-4-ylmethyl)-7-methoxy-(9CI) (CA INDEX NAME)

157058-44-1P, 1(2H)-Naphthalenone, 3,4-dihydro-2-(1H-imidazol-4yimethyl) - 157058-52-1P, 1H-Imidazole, 4-[(1,2,3,4-tetrahydro-2-naphthalenyl)methyl) - 157058-55-4P, 1H-Imidazole, 4-[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)methyl]226570-89-4P, 1H-Imidazole, 4-[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)methyl]-, monohydrochloride 226571-02-4P, 1(2H)-Naphthalenone, 3,4,5,6,7,8-hexahydro-2-(1H-imidazol-4-ylmethyl)-226571-05-7P, 1H-Imidazole, 4-{(1,2,3,4,5,6,7,8-octahydro-2-naphthalenyl)methyl]-226571-13-7P, 1H-Imidazole, 4-[((2S)-1,2,3,4-tetrahydro-2-naphthalenyl]methyl]- 226571-14-8P , lH-Imidazole, 4-[((2R)-1,2,3,4-tetrahydro-2-naphthalenyl]methyl]-226571-25-1P, lH-Imidazole, 4-[(1,2,3,4-tetrahydro-4-methyl-2-naphthalenyl)methyl]-226571-26-2P, l(2H)-Naphthalenone, 3,4-dihydro-2-(lH-imidazol-4-ylmethyl)-4-methyl- 226571-35-3P,

ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS

226571-02-4 CAPLUS

1(2H)-Naphthalenone, 3,4,5,6,7,8-hexahydro-2-(1H-imidazol-4-ylmethyl)-(CA INDEX NAME)

226571-05-7 CAPLUS

1H-Imidazole, 4-[(1,2,3,4,5,6,7,8-octahydro-2-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)

226571-13-7 CAPLUS

1H-Imidazole, 4-[((2S)-1,2,3,4-tetrahydro-2-naphthalenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

226571-14-8 CAPLUS

1H-Imidazole, 4-[[(2R)-1,2,3,4-tetrahydro-2-naphthalenyi]methyl]- (9CI)

(CA INDEX NAME) Absolute stereochemistry

226571-25-1 CAPLUS 1H-Imidazole, 4-[(1,2,3,4-tetrahydro-4-methyl-2-naphthalenyl)methyl]-(9CI) (CA INDEX NAME)

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L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued)

226571-26-2 CAPLUS 1(2H) -Naphthalenone, 3,4-dihydro-2-(1H-imidazol-4-ylmethyl)-4-methyl-(9CI) (CA INDEX NAME)

226571-35-3 CAPLUS 1H-Imidazole, 4-[(1,2,3,4-tetrahydro-4,4-dimethyl-2-naphthalenyl)methyl]-(9CI) (CA INDEX NAME)

226571-36-4 CAPLUS 1H-Imidazole, 4-((1,2,3,4-tetrahydro-7-methyl-2-naphthalenyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

226571-37-5 CAPLUS

1(2H)-Naphthalenone, 3,4-dihydro-2-(1H-imidazol-4-ylmethyl)-7-methyl-(9CI) (CA INDEX NAME)

L11 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 2002:353314 CAPLUS

DOCUMENT NUMBER: 136:365878

Methods and compositions for treatment of ocular

neovascularization and neural injury Burke, James A.; Lin, Ton; Wheeler, Larry A.; De Vries, Gerald W. INVENTOR(S):

PATENT ASSIGNEE(S): Allergan Sales, Inc., USA

PCT Int. Appl., 31 pp. CODEN: PIXXD2 SOURCE:

DOCUMENT TYPE:

LANGUAGE: FAMILY ACC. NUM. COUNT: English

PATENT INFORMATION:

PATENT NO. APPLICATION NO. DATE KIND DATE WO 2002036162 A2 20020510 WO 2001-US46014 20011101 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, C2, DE, DK, DM, D2, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MX, MN, MW, MX, MZ, NO, NZ, PL, PT,

RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, HC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 030567 A5 20020515 AU 2002-30567 20011101 094998 A1 20020718 US 2001-998718 20011101 LN. INFO.: US 2000-244850P P 20001101 US 2002094998 PRIORITY APPLN. INFO.: WO 2001-US46014 W 20011101

Methods and compns. for the treatment of ocular neovascularization (CNV) and macular degeneration are disclosed. The invention includes combining laser treatment with administration of a neuroprotectant. Seven pigmented rabbits were dosed with either 0.5 mL 0.2% brimonidine or saline administered in 1 eye of each rabbit. One hour later, the animals were treated with a 10-min i.v. infusion of 0.2 mg/kg verteporfin, then the same eye was irradiated 10 min later in the lower fundus with a 689-nm diode laser at 50 J/cm2, 600 mW/cm2 and a spot size of 1.5 mm. Brimonidine reduced the increase in retinal thickness (subretinal cyst + retina) in the lesion produced by PDT.

226571-05-7, AGN 795 423773-40-4, AGN 960 RL: PAC (Pharmacological activity): THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methods and compns. for treatment of ocular neovascularization and

neural injury) 226571-05-7 CAPLUS

1H-Imidazole, 4-[(1,2,3,4,5,6,7,8-octahydro-2-naphthalenyl)methyl}- (9CI) (CA INDEX NAME)

423773-40-4 CAPLUS

1(2H)-Maphthalenone, 2-[(2,3-dihydro-2-thioxo-1H-imidazol-4-yl)methyl]-3,4-dihydro-(9CI) (CA INDEX NAME)

L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued)

IT 226571-57-9P, 1-Naphthalenol, 1,2,3,4-tetrahydro-2-(lH-imidazol-4ylmethyl)-7-methoxy-RL: RCT (Reactant): SPN (Synthetic preparation): PREP (Preparation): RACT (Reactant or reagent)

(prepn. of imidazoles as selective agonists at .alpha.2b or .alpha.2b/.alpha.2c adrenergic receptors)

226571-57-9 CAPLUS

1-Naphthalenol, 1,2,3,4-tetrahydro-2-(1H-imidazol-4-ylmethyl)-7-methoxy-(9CI) (CA INDEX NAME)

L11 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued)

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L11 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 2001:85068 CAPLUS

DOCUMENT NUMBER: 134:260881

Potential Antidepressants Displayed Combined TITLE:

.alpha.2-Adrenoceptor Antagonist and Monoamine Uptake Inhibitor Properties

Cordi, Alex A.; Berque-Bestel, Isabelle; Persigand, AUTHOR (5): Thierry, Lacoste, Jean-Michel; Newman-Tancredi, Adrian; Audinot, Valerie; Millan, Mark J. Institut de Recherches Servier, Suresnes, F-92150, Fr.

CORPORATE SOURCE: Journal of Medicinal Chemistry (2001), 44(5), 787-805 CODEN: JMCMAR; ISSN: 0022-2623 SOURCE:

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English Classical antidepressants are thought to act by raising monoamine (serotonin and noradrenaline) levels in the brain. This action is generally accomplished either by inhibition of monoamine metab. (MAO inhibitors) or by blockade of monoamine uptake (tricyclic antidepressants and selective serotonin or noradrenaline reuptake inhibitors). However, all such agents suffer from a time lag (3-6 wk) before robust clin. efficacy can be demonstrated. This delay may reflect inhibitory actions of noradrenaline at presynaptic .alpha.2A-adrenergic auto- or heteroreceptors which gradually down-regulate upon prolonged exposure. Blockade of presynaptic .alpha.2A-adrenoceptors by an antagonist endowed with monoamine uptake inhibition properties could lead to new antidepressants with greater efficacy and a shorter time lag. In the literature, only two mols. have been described with such a pharmacol. profile. Of these, napamezole was chosen as a point of departure for the design of 4(5)-[(3,4-dihydro-2-naphthalenyl)methyl]-4,5-dihydroimidazole, which displayed the desired profile: .alpha.2A-adrenoceptor antagonist properties and serotonin/noradrenaline uptake inhibition. From this original mol., a series of derivs. was designed and synthesized, encompassing substituted as well as rigid analogs. Structure-activity relationships permitted the selection of (4(5)-[(5-fluoroindan-2-1) methy1]-4,5-dihydroimidazole) as a development candidate.

331992-77-9P 331992-78-0P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and structure-activity relations of potential antidepressants displaying combined .alpha.2-adrenoceptor antagonist and monoamine uptake inhibitor activities)

1(2H)-Naphthalenone, 3,4-dihydro-2-{[1-(triphenylmethyl)-1H-imidazol-4-yl]methyl}- (9CI) (CA INDEX NAME)

331992-78-0 CAPLUS

L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:12424 CAPLUS DOCUMENT NUMBER: 134:06245

TITLE:

Preparation of imidazoles as selective agonists at

.alpha.2b or .alpha.2b/.alpha.2c adrenergic receptors.

INVENTOR(S): Chow, Ken; Gil, Daniel W.; Burke, James A.; Harcourt, Dale A.; Garst, Michael E.; Wheeler, Larry A.; Munk,

Stephen A. Allergan Sales, Inc., USA PATENT ASSIGNEE (S):

PCT Int. Appl., 145 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: English

PATENT INFORMATION:

FAMILY ACC. NUM. COUNT: PATENT NO. APPLICATION NO. DATE KIND DATE WO 2001000586 A1 20010104 WO 2000-US15795 20000608 AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, S2, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1104407 A1 20010606 EP 2000-939699 20000608

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

US 2002156076 A1 20021024 US 2001-948001 20010906 PRIORITY APPLN. INFO.: US 1999-329752 19990610 US 1997-985347

B2 19981204

US 1998-205597 WO 2000-US15795 W 20000608

US 2000-679919 A1 20001005 OTHER SOURCE(S): MARPAT 134:86245

Title compds. [Is dotted lines = optional double bonds: R = H, alkyl; X = S, CHR1: R1 = H, alkyl, null: Y = O, N, S, [C(R1)n]y, CH:CH, Y1CH2: y = 1-3: n = 1, 2: R2 = H, alkyl, halo, OH, alkoxy, alkenyl, acyl, alkynyl, etc.; R3, R4 = H, alkyl, halo, alkenyl, acyl, alkynyl, etc.; R3R4 = atoms to form (unsatd.) (heterocyclic) ring], were prepd. Thus, l-(dimethylsulfamoyl)imidazole in THF at -78.degree. was treated with BuLi and tert-butyldimethylsilyl chloride followed by warming to room temp., stirring overnight, cooled to -20.degree., and treatment with Buli and 3-thiophenecarboxaldehyde followed by warming to room temp. and stirring

ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued)
1-Naphthalenol, 1,2,3,4-tetrahydro-2-{[1-(triphenylmethyl)-1H-imidazol-4-yl}methyl]- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS 37 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

(Continued) L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS overnight to give 2-(tert-butyldimethylsily1)-5-(hydroxythiophen-2-ylmethyl)imidazole-1-sulfonic acid dimethylamide. This was treated sequentially with Bu4NF, Et3SiH/CF3CO2H/CH2C12, and aq. HCl to give 4(5)-thiophen-3-ylmethyl-1H-imidazole. Tested I as eyedrops at 0.03-1% reduced intraocular pressure in cynomolgus monkeys by 12.4-33% and showed no sedative activity.

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of imidazoles as selective agonists at .alpha.2b or

alpha. 2b/. alpha. 2c adrenergic receptors)

157058-47-4 CAPLUS 1(2H)-Naphthalenone, 3,4-dihydro-2-(1H-imidazol-4-ylmethyl)-7-methoxy-(CA INDEX NAME)

IT 157058-55-4P 226570-89-4P 226571-02-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of imidazoles as selective agonists at .alpha.2b or

.alpha.2b/.alpha.2c adrenergic receptors) 157058-55-4 CAPLUS

1H-Imidazole, 4-[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)methyl]-(9CI) (CA INDEX NAME)

226570-89-4 CAPLUS

1H-Imidazole, 4-[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HC1

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L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued)

226571-02-4 CAPLUS

1(2H)-Naphthalenone, 3,4,5,6,7,8-hexahydro-2-(1H-imidazol-4-ylmethyl)-(9CI) (CA INDEX NAME)

226571-05-7 CAPLUS 1H-Imidazole, 4-[(1,2,3,4,5,6,7,8-octahydro-2-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)

157058-44-1 157058-52-1 226571-13-7 ΙT 226571-14-8 226571-25-1 226571-26-2 226571-35-3 226571-36-4 226571-37-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(prepn. of imidazoles as selective agonists at .alpha.2b or .alpha.2b/.alpha.2c adrenergic receptors)
157058-44-1 CAPLUS

1(2H)-Naphthalenone, 3,4-dihydro-2-(1H-imidazol-4-ylmethyl)- (9CI) (CA

157058-52-1 CAPLUS

1H-Imidazole, 4-[(1,2,3,4-tetrahydro-2-naphthalenyl)methyl]- (9CI) (CA

226571-13-7 CAPLUS 1H-Imidazole, 4-[[(2S)-1,2,3,4-tetrahydro-2-naphthalenyl]methyl]- (9CI)

L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued) (9CI) (CA INDEX NAME)

226571-36-4 CAPLUS

1H-Imidazole, 4-[(1,2,3,4-tetrahydro-7-methyl-2-naphthalenyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

226571-37-5 CAPLUS

1(2H) -Naphthalenone, 3,4-dihydro-2-(1H-imidazol-4-ylmethyl) -7-methyl-(9CI) (CA INDEX NAME)

IT 226571-57-9P

RL: RCT (Reactant): SPN (Synthetic preparation): PREP (Preparation): RACT (Reactant or reagent)

(prepn. of imidazoles as selective agonists at .alpha.2b or alpha.2b/.alpha.2c adrenergic receptors)

226571-57-9 CAPLUS

1-Naphthalenol, 1,2,3,4-tetrahydro-2-(1H-imidazol-4-ylmethyl)-7-methoxy-(9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued) (CA INDEX NAME)

Absolute stereochemistry.

226571-14-8 CAPLUS 1H-Imidazole, 4-[[(2R)-1,2,3,4-tetrahydro-2-naphthalenyl]methyl]- (9CI)

Absolute stereochemistry.

226571-25-1 CAPLUS 1H-Imidazole, 4-[(1,2,3,4-tetrahydro-4-methyl-2-naphthalenyl)methyl]-(9CI) (CA INDEX NAME)

226571-26-2 CAPLUS 1(2H)-Naphthalenone, 3,4-dihydro-2-(1H-imidazol-4-ylmethyl)-4-methyl-(9CI) (CA INDEX NAME)

1H-Imidazole, 4-{(1,2,3,4-tetrahydro-4,4-dimethyl-2-naphthalenyl)methyl}-

L11 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS 1995:612212 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE: Medetomidine analogs as .alpha.-adrenergic

agonists

Amemiya, Yoshiya: Hus, Fulian: Shams, Gamal: Feller, AUTHOR (5): Dennis R.; Venkataraman, B. V.; Patil, Popat N.;

Miller, Duane D. College Pharmacy, Ohio State University, Columbus, OH, CORPORATE SOURCE: 43210, USA

SOURCE: Egyptian Journal of Pharmaceutical Sciences (1994); 35(1-6), 403-10

CODEN: EJPSBZ; ISSN: 0301-5068

PUBLI SHER:

National Information and Documentation Centre DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 123:198691

Recently, it has been reported that medetomidine is a new 4-substituted imidazole analog possessing selective and potent lalpha.2-adrenergic properties. It has been shown that it reduces blood pressure, heart rate and saliva secretion. At the present time is sedative and hypotensive effects seem to be manifest in the same dose range. We have initiated a program to see if it is possible to sep. these activities with analogs of medetomidine. The initial studies have been directed at procedures for the conversion of the imidazolines, a common structure of .alpha.-adrenergic drugs, to the corresponding imidazoles. It was found that 2-substituted and 2,4-disubstituted imidazolines can easily be converted into imidazoles using 10% Pd/C in refluxing toluene, while in some instances there are some difficulties with the conversion of 4-substituted imidazolines to the imidazoles. The synthesis of 1- or 2-(2-or 4-imidazolylmethyl) naphthalene analogs of medetomidine are also described.

137967-88-5P RL: BAC (Biological activity or effector, except adverse): BSU (Biological study, unclassified): SPN (Synthetic preparation): BIOL (Biological study); PREP (Preparation)

(prepn. of 4-substituted imidazoles) 137967-88-5 CAPLUS

1H-Imidazole, 4-[1-(2-naphthalenyl)ethyl]- (9CI) (CA INDEX NAME)

L11 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1995:612188 CAPLUS

DOCUMENT NUMBER: 123:111932

Synthesis and .alpha.-adrenergic activities of 2- and 4-substituted imidazoline and imidazole

analogs of .alpha.- and .beta.-naphthalene Amemiya, Yoshiya; Venkataraman, Burrah V.; Patil, Popat N.; Shams, Gamal; Romstedt, Karl AUTHOR (S): College Pharmacy, Ohio State University, Columbus, OH,

CORPORATE SOURCE: 43210, USA

Egyptian Journal of Pharmaceutical Sciences (1994), SOURCE: 35(1-6), 91-112

CODEN: EJPSBZ; 155N: 0301-5068 National Information and Documentation Centre

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

Seven analogs of medetomidine and naphazoline were synthesized and evaluated for their .alpha.1- (aorta) and .alpha.2- (platelet) activities. The analogs were composed of 2- and 4-substituted imidazoles and imidazolines attached through a methylene bridge to either an .alpha.- or .beta.-naphthalene ring system. In general the .alpha.-naphthlene analogs were found to be the most potent inhibitors of platelet aggregation. .alpha.-Naphthalene analogs were partial agonists while the .beta.-naphthalene analogs were antagonists in .alpha.1-adrenergic system (aorta).

137967-82-9P 166034-65-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis and adrenergic activities of medetomidine and

naphazoline analogs) 137967-82-9 CAPLUS

lH-Imidazole, 4-[1-(2-naphthalenyl)ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HC1

166034-65-7 CAPLUS

1H-Imidazole, 4-[1-{2-naphthalenyl}ethyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CRN 137967-88-5 CMF C15 H14 N2

L11 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS 1992:106173 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE: Synthesis and .alpha.-adrenergic activities of 2- and 4-substituted imidazoline and imidazole

AUTHOR (S):

Amemiya, Yoshiya: Hong, Seoung S.: Venkataraman, Burrah V.: Patil, Popat N.: Shams, Gamal: Romstedt, Karl: Feller, Dennis R.: Hsu, Fu Lian: Miller, Duane

CORPORATE SOURCE: Coll. Pharm., Ohio State Univ., Columbus, OH, 43210,

Journal of Medicinal Chemistry (1992), 35(4), 750-5

CODEN: JMCMAR; ISSN: 0022-2623 DOCUMENT TYPE: Journal

LANGUAGE:

SOURCE:

Analogs I-III (R = 1-naphthyl, 2-naphthyl; R1 = H, Me) of medetomidine and naphazoline were synthesized and evaluated for their .alpha.1 (aorta) and .alpha.2 (platelet) activities. In general the 1-naphthalene analogs were the most potent inhibitors of epinephrine-induced platelet aggregation. Of considerable interest was the fact that I-III (R = 1-naphthyl) were antagonists in an .alpha.1-edrenargic system (aorta). Thus, appropriately substituted naphthalene analogs of medetomidine and naphazoline provide a spectrum of .alpha.1-agonist, .alpha.1-antagonist,

and .alpha.2-antagonist activity. 137967-82-9P 137967-85-2P 137967-86-3P

137967-88-59

RL: SPN (Synthetic preparation): PREP (Preparation) (prepn. and adrenergic activity of)

137967-82-9 CAPLUS

1H-Imidazole, 4-[1-(2-naphthalenyl)ethyl)-, monohydrochloride (9CI) (CA

137967-85-2 CAPLUS

1H-Imidazole, 2-[1-(2-naphthalenyl)ethyl]- (9CI) (CA INDEX NAME)

L11 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2003 ACS

CH 2

CRN 144-62-7 CMF C2 H2 O4

IT 137967-85-2P 137967-88-5P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and adrenergic activities of medetomidine and naphazoline analogs)

137967-85-2 CAPLUS

1H-Imidazole, 2-(1-(2-naphthalenyl)ethyl)- (9CI) (CA INDEX NAME)

137967-88-5 CAPLUS

1H-Imidazole, 4-[1-(2-naphthalenyl)ethyl]- (9CI) (CA INDEX NAME)

L11 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued)

137967-86-3 CAPLUS

1H-Imidazole, 2-[1-(2-naphthalenyl)ethyl]-, ethanedicate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 137967-85-2 CMF C15 H14 N2

CRN 144-62-7 CMF C2 H2 O4

HO-C-C-OH

137967-88-5 CAPLUS 1H-Imidazole, 4-[1-(2-naphthalenyl)ethyl]- (9CI) (CA INDEX NAME)

9815362Page 19 02/06/2003

L11 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1992:15364 CAPLUS

DOCUMENT NUMBER: 116:15364

Structure-activity studies of new imidazolines on adrenoceptors of rat aorta and human platelets

Venkataraman, B. V.; Shams, G.; Hamada, A.; Amemiya, AUTHOR(S):

Y.; Tantishaiyakul, V.; Hsu, F.; Fashempour, J.; Romstedt, K. J.; Miller, D. D.; et al. Coll. Pharm., Ohio State Univ., Columbus, OH, 43210, CORPORATE SOURCE:

Naunyn-Schmiedeberg's Archives of Pharmacology (1991), SOURCE:

344(4), 454-63 CODEN: NSAPCC: ISSN: 0028-1298

DOCUMENT TYPE: Journal English

LANGUAGE:

Potencies of new arom. substituted fluoro or iodo analogs of catecholimidazoline (I) on functional responses in rat aorta (.alpha.l) and platelets (.alpha.2) were quantified. When compared either on the basis of EC50 or the dissoon. const. (KA), 5-fluorocatecholimidazoline was as potent as the ref. .alpha.l-adrenoceptor agonist, phenylephrine in the vascular tissue. The max. contraction of aorta produced by the fluoro analog was, however, 17% higher than that of phenylephrine. The time required for 1/2 relaxation of the tissue after 5-fluoro hydroxy imidazoline was at least twice as long as that of the phenylephrine. The catechol moiety as well as fluorine substitution at the crit. 5-position of the arom. ring is essential for higher .alpha.1 adrenoceptor-mediated potency. As compared to the fluoro analogs, the adrenoceptor-mediated potencies of iodo-analogs were relatively weak on vascular tissue. Naphazoline and its analogs were partial agonists on vascular tissue with dissorn. consts. which ranged from 110 to 2600 nmol/L. Imidazole analogs (II, R = naphthyl or xylene), were generally less potent agonist than the imidazolines by one order of magnitude. The vascular effects of all agonists were competitively blocked by prazosin with KB values which ranged from 0.04 to 0.48 nmol/L. Since the variation in KB values were within normal limits, the action of new imidazolines on rat aorta appears to be mediated mainly by the activation of the .alpha.l-adrenoceptor. Prazosin 10 nmol/L abolished the vascular response of some partial agonists. This indicates a slightly different mode of interaction of agonists with the transduction process. Carbon 4-substituted imidazolines produced little or no .alpha.l adrenoceptor-mediated intrinsic activity, but competitive receptor blocking potency was comparable to that of phentolamine. Medetomidine was a partial agonist on the rat aorta with a KA of 260 nmol/L. When investigated as a blocker, the KB of medetomidine

L11 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2003 ACS (Continued) against phenylephrine was approx. 5600 nmol/L. The variation in the latter value was high. In acetylsalicylic acid-treated human platelets, the alpha.2-adrenoceptor-mediated aggregatory effect of all fluoro analogs was weak. Iodo or naphazoline analogs did not initiate platelet aggregation but blocked the aggregation induced by epinephrine. The affinity of naphazoline for the .alpha.2-adrenoceptor was 1100 nmol/L. The IC50 of medetomidine for platelet anti-aggregatory effect was 3300 nmol/L, which compares favorably with other imidazoline type of blockers of platelet aggregations. Sympathomimetic varoconstrictor actions and platelet aggregation effects of these compds. can be dissord. Some vasoconstrictors were antiaggregatory. The structure-activity relationships of the two receptor systems, namely rat aorta (.alpha.1) and platelets (.alpha.2), are discussed.

137967-85-2 137967-88-5 RL: BIOL (Biological study)

(.alpha.-adrenoceptors of aorta and human platelets interaction with, structure in relation to)

137967-85-2 CAPLUS

1H-Imidazole, 2-[1-(2-naphthalenyl)ethyl]- (9CI) (CA INDEX NAME)

137967-88-5 CAPLUS

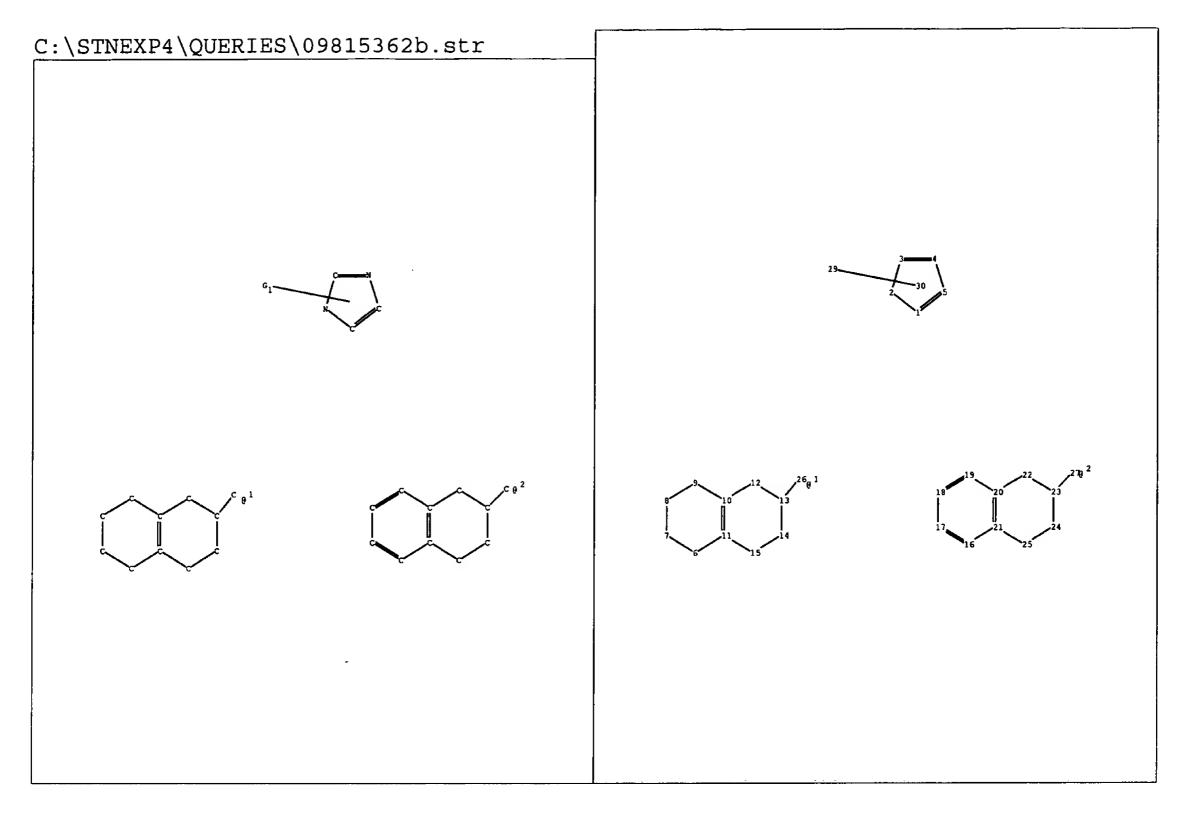
1H-Imidazole, 4-[1-(2-naphthalenyl)ethyl]- (9CI) (CA INDEX NAME)

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=> log y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL SESSION
FULL ESTIMATED COST	ENTRY 39.26	486.32
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   26 27 29
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   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
   22 23 24 25
chain bonds :
   13-26 23-27
ring bonds :
   1-2 1-5 2-3 3-4 4-5 6-7 6-11 7-8 8-9 9-10 10-11 10-12 11-15
   12-13 13-14 14-15 16-17 16-21 17-18 18-19 19-20 20-21 20-22
   21-25 22-23 23-24 24-25
exact/norm bonds :
   1-2 1-5 2-3 3-4 4-5 6-7 6-11 7-8 8-9 9-10 10-11
                                                        10-12 11-15
   12-13 13-14 14-15 20-22 21-25 22-23 23-24 24-25
exact bonds:
   13-26 23-27
normalized bonds :
   16-17 16-21 17-18 18-19 19-20 20-21
G1:[*1],[*2]
Match level :
   1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
```

10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom

26:CLASS 27:CLASS 29:CLASS 30:CLASS